AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (Currently Amended) A method of forming a structural panel, comprising:

using at least one metal sheet to form a frame structure, wherein the metal sheet defines an opening;

applying a generally optically transparent, fiber pre-impregnated resin tape to the metal sheet to ~~at least partially~~ substantially cover the metal sheet and fill the opening;

heating the metal sheet and the fiber pre-impregnated resin tape such that the resin melts and ~~at least partially~~ substantially covers the metal sheet and fills the opening; and

~~wherein~~ once cured, the generally transparent, fiber pre-impregnated resin tape forms a see-through window portion in the frame panel.

2. (Currently Amended) The method of claim 1, wherein applying the generally optically transparent, fiber pre-impregnated resin tape to the metal sheet comprises applying a plurality of fiber pre-impregnated resin tapes one adjacent another to fully cover the metal sheet and fully fill the opening therein.

3. (Original) The method of claim 1, wherein the fiber pre-impregnated resin tape comprises a plurality of fibers impressed into a resin tape.

4. (Original) The method of claim 3, wherein the fibers are comprised of fiberglass.

5. (Currently Amended) The method of claim 3, wherein the resin comprises **[[**an**]]** a transparent aliphatic epoxy resin.

6. (Original) The method of claim 3, wherein the fibers have an index of refraction matching an index of refraction of the resin.

7. (Original) The method of claim 1, wherein the metal sheet comprises a plurality of metal foil strips.

8. (Cancelled)

9. (Original) The method of claim 1, wherein the metal sheet is comprised of aluminum.

10. (Original) The method of claim 1, wherein the metal sheet is comprised of titanium.

11. (Original) The method of claim 1, wherein the metal sheet forms a plurality of openings each corresponding to a window.

12. (Original) The method of claim 1, wherein the fiber pre-impregnated resin tape has a width of approximately 1/8" (3.175 mm) to about 12" (304.8 mm).

13. (Currently Amended) A method of manufacturing a transparent window skin panel comprising:

providing a tool;

providing a pre-impregnated resin tape comprised of a plurality of fibers impressed into a resin;

providing a ~~structural~~ metal sheet having a plurality of ~~perforations~~ spaced apart openings formed therein;

layering the pre-impregnated resin tape and the structural sheet onto the tool such that the structural sheet and the pre-impregnated resin tape are aligned one atop the other, such that the pre-impregnated resin tape completely covers the openings and overlays a periphery of the metal sheet;

heating the tool, the structural sheet, and the pre-impregnated resin tape such that the resin flows to at least partially cover the metal sheet and the fibers, the resin and fibers being substantially transparent to form a plurality of see-through window ~~portion~~ portions in the skin panel.

14. (Cancelled)

15. (Currently Amended) The method of manufacturing a transparent window skin panel of claim 13, wherein providing a pre-impregnated resin tape, providing a metal sheet, and layering the pre-impregnated resin tape and the metal sheet onto the tool ~~are repeated to produce a series~~ comprises using a plurality of metal sheets and a plurality of layers of ~~variously alternating~~ pre-impregnated resin tapes, and arranging the metal sheets and layers of pre-impregnated resin tapes in alternating layers.

16. (Cancelled)

17. (Currently Amended) The method of manufacturing a transparent window skin panel of claim 16, wherein applying the pre-impregnated resin tape within any given layer comprises applying a plurality of fiber pre-impregnated resin tapes one adjacent another to fully cover the metal sheets and fully fill the openings ~~therein~~ in the metal sheets.

18. (Original) The method of manufacturing a transparent window skin panel of claim 13, wherein the fibers have an index of refraction matching an index of refraction of the resin.

19. (Original) The method of manufacturing a transparent window skin panel of claim 13, wherein the resin comprises a transparent aliphatic epoxy.

20. (Currently Amended) The method of manufacturing a transparent window skin panel of claim 13, wherein the metal ~~sheets are~~ sheet is comprised of aluminum.

21. (Currently Amended) The method of manufacturing a transparent window skin panel of claim 13, wherein the metal ~~sheets are~~ sheet is comprised of titanium.

22. (Original) The method of manufacturing a transparent window skin panel of claim 13, wherein the fibers are comprised of fiberglass.

23. (Original) The method of manufacturing a transparent window skin panel of claim 13, wherein the resin comprises a transparent aliphatic epoxy resin.

24. (Original) The method of manufacturing a transparent window skin panel of claim 13, wherein the fibers have an index of refraction matching an index of refraction of the resin.

25. (Original) The method of manufacturing a transparent window skin panel of claim 13, wherein the metal sheet comprises a plurality of metal foil strips.

26. (Cancelled)

27. (Original) The method of manufacturing a transparent window skin panel of claim 13, wherein the metal sheet is comprised of aluminum.

28. (Original) The method of manufacturing a transparent window skin panel of claim 13, wherein the metal sheet is comprised of titanium.

29. (Original) The method of manufacturing a transparent window skin panel of claim 13, wherein the pre-impregnated resin tape has a width of approximately 1/8" (3.175 mm) to about 12" (304.8 mm).

30. (Original) The method of manufacturing a transparent window skin panel of claim 13, further comprising placing a caul plate atop the metal sheet, pre-impregnated resin tape, and tool.

31. (Original) The method of manufacturing a transparent window skin panel of claim 30, further comprising placing the caul plate, metal sheet, pre-impregnated resin tape, and tool into a vacuum bag and removing the air therein.

32. (Original) The method of manufacturing a transparent window skin panel of claim 13, wherein heating the tool, metal sheet, and pre-impregnated resin tape comprises using an autoclave.

33. (Original) The method of manufacturing a transparent window skin panel of claim 29, wherein the autoclave heats the tool, metal sheet, and pre-impregnated resin tape to approximately 350 degrees Fahrenheit under approximately 100 to 200 psi of pressure.